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Wind + Solar + Signs =  
A Beautiful Idea

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## Introducing Colite Technologies and Renewable Lighting

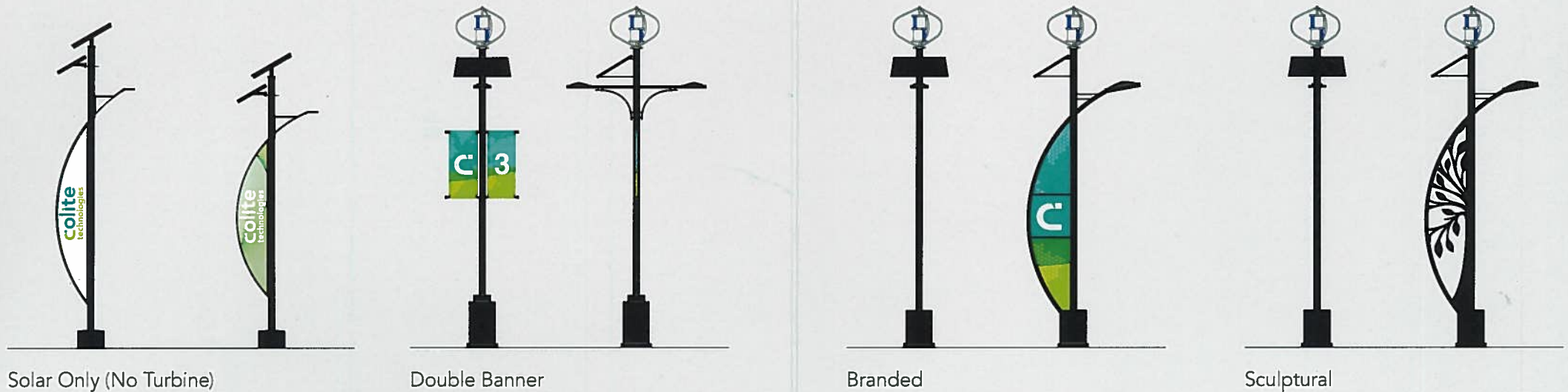
Over the past 25 years we've created partnerships with businesses across Europe, parts of Africa, Asia, Australia and New Zealand. Working with international brands has made us better global citizens. It's made us serious about the issues that impact our environment—and we're using our capabilities to help our customers practice environmental stewardship.

We're pleased to present Renewable Lighting from Colite Technologies—a completely off-grid lighting solution combining 100% green energy and innovative signage that delivers three times the impact of traditional electric lighting.





## Brand Applications



### Colite Technologies Renewable Lighting

For companies trying to reduce their carbon footprint and increase their use of green energy, our renewable technology offers highly reliable off-grid lighting solution for parking lots, pathways, business parks and public areas.

Each lighting solution is tailored to fit your location and lighting needs; whether you are capturing a mix of solar and wind energy with a turbine and photovoltaic panel – or creating a solar-only option for environments rich in sunlight. As you would expect from the Colite name, we include the option to add custom signage and leverage this unique branding opportunity even further.

**ADD SIGNAGE. ELIMINATE INFRASTRUCTURE AND ENERGY**

**COSTS. NOW THAT'S SMART.**

### Why is this good for your business?

**Lower Your Energy Costs.** Imagine no monthly utility bills. This means a lifetime of energy savings once your installment costs are paid. The savings are significant.

**Reduce Your Carbon Footprint.** Today 100% renewable energy is more than a buzzword—it's a mandate, as companies worldwide transition to renewable energy sources. Colite's Turbine Technology is a green power installation that not only saves money, it takes facility lighting off the grid to greatly reduce your carbon footprint.

# 30%

Federal Government may offer up to 30% Investment Tax Credit on wind & solar. Many states may offer additional incentives—between 15%-25%.



**Enjoy Off Grid Flexibility.** Have light exactly where you need it. It doesn't matter if the power of the grid is far away. Installation is easy, and doesn't depend on existing infrastructure. There is no costly trenching to bury power lines.

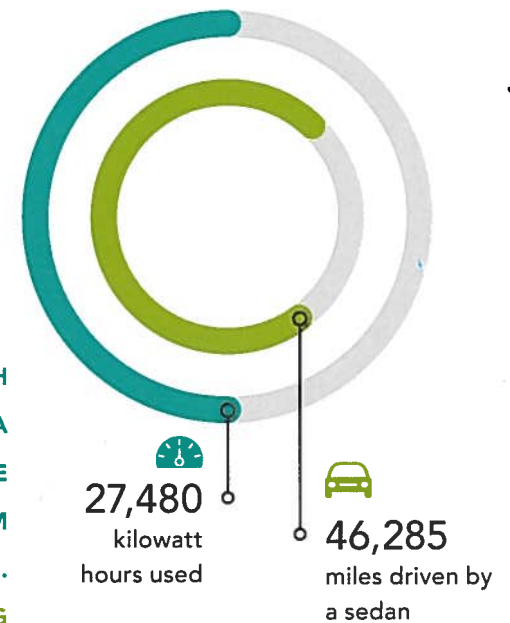
**Practice Environmental Stewardship.** Put your company in the best light by making it a leader in the green energy movement.

**Rely on Strong Design.** Light wherever and whenever it's needed. Even in a power outage. Maximum efficiency in all wind conditions and solar energy to charge the battery system for year-round reliability.

**AN AVERAGE PARKING LOT WITH 20 FIXTURES USES 27,480 KWH IN A YEAR, WHICH IS EQUIVALENT TO THE GREENHOUSE GAS EMISSION FROM DRIVING 46,285 MILES. OUR RENEWABLE LIGHTING USES ZERO.**

**Enhance Your Facility.** Durable and beautiful, each turbine is made from high-strength anodized aluminum for strength and longevity. They harvest winds at low speeds. And they're quiet. Our signage provides attractive company branding and there are no power lines to spoil the view.

#### KNOW THE EFFECTS



**Reduce your energy costs for a competitive advantage.**

Colite is lighting the way to the next generation of solutions because solving problems for our customers is our priority. Learn more about our turbine technology and how it can benefit your company.

Making a world  
of difference.



LIGHTING AND RENEWABLE ENERGY SOLUTIONS  
[colite-technologies.com](http://colite-technologies.com)

For a demonstration, call **Yates Reynolds** at **803.309.7989** or email us  
at [renewables@colite.com](mailto:renewables@colite.com).



# Case Study



*South Carolina Research Authority is partnering with Colite Technologies to systematically replace older on-grid lighting with renewable lighting at its Carolina Research Park in Columbia, SC.*

## Project Overview

- The South Carolina Research Authority (SCRA) was chartered in 1983 as a public, non-profit corporation to foster innovation in SC's economy
- Carolina Research Park was established over 25 years ago as a state-of-the-art industrial park
- A significant portion of the existing on-grid lighting in the park is non-functional; repair and replacement would be costly and time-consuming

## Project Benefits

- Lighting systems are totally off-grid and self-sustaining
- Reduced power usage will result in electricity costs savings of roughly \$100,000 over the life of the units
- No costly rewiring or trenching is required
- Limited infrastructure reduces overall maintenance requirements
- Over 84 metric tons of carbon emissions will be avoided over 20 years
- These updates improve the image of SCRA Park as a leader of technological research



## Main Components:

### Wind Turbine

- Vertical axis design
- Internal and external blades maximize efficiency while minimizing noise
- Rated power: 300watts
- Useful life: 20+ years

### Solar Photovoltaic (PV) Panel

- Monocrystalline panels (highest efficiency available)
- Rated power: 295watts
- Useful life: 25+ years

### LED Lighting

- Low energy consumption (12volt, 48watt)
- High output (5,000 lumens)
- Useful life: 12+ years

### Battery Energy Storage

- Lithium Phosphate
- 13.8volts, 111amp-hours
- Useful life: 10+ years

### Control Module

- Optimizes battery charging cycles
- Allows real-time monitoring, adjustments, and turbine braking



# Case Study

## Electric Cooperatives of South Carolina



### Test Platform for New Technologies

ECSC's new hybrid renewable lighting installation—donated by Colite Technologies—is a great test platform for emerging battery storage, renewable energy, and lighting technologies.

The lighting installation is designed for off-grid use, offering an alternative to providing electric service in remote areas and locations that are difficult to serve by traditional means.

Energy generation and consumption data will be tracked in real time and used as an educational tool.

The installation serves as a visible representation of ECSC's commitment to exploring emerging energy technologies that might benefit South Carolina's electric cooperatives and their members.

### LED Lighting Upgrades

Recent parking lot lighting upgrades at the ECSC office building are expected to yield significant savings in energy costs. By replacing the high pressure sodium (HPS) parking lot light bulbs with LED bulbs, ECSC should achieve savings of more than \$16,000 over a 10 year period.

### Lower Energy Consumption

LED: 100 watt bulbs

HPS: 400 watt bulbs

### Longer Useful Life

LED: 50,000 hours (12+ years)

HPS: 24,000 hours (5+ years)



### Main Components:

#### Wind Turbine

- Vertical axis design
- Internal and external blades maximize efficiency while minimizing noise and vibration
- Rated power: 300 watts
- Useful life: 20+ years

#### Solar Photovoltaic (PV) Panel

- Monocrystalline panels (highest efficiency available)
- Rated power: 285 watts
- Useful life: 25+ years

#### LED Lighting

- Low energy consumption (12 volt, 48 watt)
- High output (5,000 lumens)
- Useful life: 12+ years

#### Battery Energy Storage

- Lithium Phosphate
- 13.8 volts, 111 amp-hours
- Useful life: 10+ years

#### Control Module

- Optimizes battery charging cycles
- Allows real-time monitoring, adjustments, and turbine braking



# Case Study

## HAMMOND

### *Hammond School, Thinking Ahead, Partners with Colite Technologies on Renewable Lighting Systems*

#### Project Overview

- Hammond offers a thoughtfully developed academic experience for pre-K through grade 12
- The School opened a brand new 30,000sqft Innovation Center to kick off the 2018-19 academic year
- Hammond wanted its students to have unrivaled access to tools for learning in science and technology
- The new Center synthesizes research gleaned from schools and universities about their science and technology centers
- To highlight the application of renewable energy, Hammond installed two renewable lighting systems anchoring the main entrances

#### Project Benefits

- Lighting systems are totally off grid and self sustaining
- Reduced power usage results in electricity costs savings of roughly \$1500 over the life of units
- No costly wiring or trenching
- Limited infrastructure reduces maintenance over time
- Over 16 metric tons of carbon emissions avoided over 20years
- Systems serve as a visible sign of Hammond's commitment to innovation and to exploring emerging energy technologies



#### Main Components:

##### Wind Turbine

- Vertical axis design
- Internal and external blades maximize efficiency, minimize noise
- Rated power: 300watts
- Useful life: 20+ years

##### Solar Photovoltaic (PV) Panel

- Monocrystalline panels (highest efficiency available)
- Rated power: 295watts
- Useful life: 25+ years

##### LED Lighting

- Low energy consumption (12volt, 48watt, dimmable)
- High output (5,000 lumens)
- Useful life: 12+ years

##### Battery Energy Storage

- Lithium Phosphate
- 13.8volts, 111amp-hours
- Useful life: 10+ years

##### Control Module

- Optimizes battery charging cycles
- Allows real-time monitoring, adjustments, and turbine braking







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